What is claimed is:

1. A document organizing apparatus for organizing a group of documents based on keywords, comprising:

   relation extracting means for extracting a hierarchical relation and an associative relation between given keywords;

   generating means for generating directory information for accessing the group of documents with the hierarchical relation and the associative relation as links; and

   outputting means for outputting the directory information.

2. The document organizing apparatus as set forth in claim 1,

   wherein said relation extracting means includes:

   rule extracting means for extracting an association rule containing a pair of keywords from the given keywords; and

   rule evaluating means for evaluating the association rule and assigning one of the hierarchical relation, the associative relation, and an equivalent relation to the pair of keywords.

3. The document organizing apparatus as set forth in claim 2,

wherein said rule extracting means extracts a pair of keywords with a high cooccurrence frequency as the association rule, and

wherein said rule evaluating means assigns a relation of the extracted pair of keywords thereto based on the cooccurrence frequency.

4. The document organizing apparatus as set forth in claim 1,

wherein said relation extracting means includes:

means for extracting a pair of keywords with a high cooccurrence frequency from the given keywords; and

means for assigning one of the hierarchical relation, the associative relation, and an equivalent relation to the pair of keywords based on the cooccurrence frequency of the pair of keywords.

5. The document organizing apparatus as set forth in claim 1,

wherein said relation extracting means divides one of the given keywords into character sub-strings and extracts an inclusion relation between the given

keyword and the character sub-strings as the hierarchical relation.

6. The document organizing apparatus as set forth in claim 1,

wherein said relation extracting means includes:

means for extracting a first hierarchical relation from a pair of keywords based on a cooccurrence frequency thereof;

means for extracting a second hierarchical relation from an inclusion relation between one of the given keywords and character sub-strings thereof; and

means for merging the first hierarchical relation, the second hierarchical relation, and another hierarchical relation given from the outside.

7. The document organizing apparatus as set forth in claim 1,

wherein said generating means generates a hypertext index having at least one of a path from a top category to a directory, a higher hierarchical word of the directory, a sub-category of the directory, an associative word of the directory, and a kana/alphabetic order index, as the directory

information using the hierarchical relation and the associative relation, and

wherein said outputting means organizes the group of documents corresponding to the generated hypertext index and outputs an organized result.

8. The document organizing apparatus as set forth in claim 7,

wherein said generating means automatically calculates a path from a keyword of the top category to each keyword using the hierarchical relation and the associative relation and sets an obtained path as the path from the top category to the directory.

9. The document organizing apparatus as set forth in claim 1, further comprising:

means for adding an equivalent relation between keywords based on a synonym list given from the outside,

wherein said generating means generates directory information including the equivalent relation.

10. The document organizing apparatus as set forth in claim 1, further comprising:

means for deleting a keyword based on an

unnecessary word list given from the outside,

wherein said generating means generates directory information excluding the deleted keyword.

5   11.   The document organizing apparatus as set forth in claim 1, further comprising:

means for inputting a given hierarchical relation between keywords,

wherein said generating means generates directory
10   information using the given hierarchical relation.

12.   The document organizing apparatus as set forth in claim 1, further comprising:

means for comparing the given keywords and old
15   keywords and identifying a new keyword,

wherein said outputting means outputs the new keyword in a highlighted format.

13.   The document organizing apparatus as set
20   forth in claim 1, further comprising:

accessing means for accessing the directory information,

wherein a user accesses the group of documents through the directory information.

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14. The document organizing apparatus as set forth in claim 1, further comprising:

keyword searching means for searching a keyword included in the directory information; and

5   document searching means for searching contents of documents in the group of documents,

wherein a user obtains document information using said keyword searching means and said document searching means.

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15. An information organizing apparatus for organizing arbitrary information based on keywords, comprising:

relation extracting means for extracting a
15   hierarchical relation and an associative relation between given keywords;

generating means for generating directory information for accessing the arbitrary information with the hierarchical relation and the associative
20   relation as links; and

outputting means for outputting the directory information.

16. A computer-readable recording medium which
25   stores a program that causes a computer, that

organizes a group of documents based on keywords, to perform the steps of:

extracting a hierarchical relation and an associative relation between given keywords; and

5   generating directory information for accessing the group of documents with the hierarchical relation and the associative relation as links.

17. A document organizing method, comprising the

10   steps of:

extracting a hierarchical relation and an associative relation between given keywords; and

generating directory information for accessing the group of documents with the hierarchical relation and

15   the associative relation as links; and

organizing the group of documents based on the directory information.